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LECTURES.

CLINICAL LECTURE ON ANIMAL PARASITIC SKIN-DISEASES.

DELIVERED AT THE NEW YORK HOSPITAL.

BY L. DUNCAN BULKLEY, M. D.

Phthiriasis or Pediculosis. — GENTLEMEN: Our first patient to-day, a man in advanced life, affords us a very good example of one of the varieties of phthiriasis, namely, pediculosis corporis, the name which is given to the condition of skin excited by the presence of lice on the body. It may not often fall to your lot to meet with individuals in as low a position of life as this one evidently is, but whether you find it among the highest (as is occasionally the case) or the lowest, the affection in question always presents the same characteristics.

What you see here [the patient being now stripped to the waist] are secondary lesions, that is, they are produced not by the parasite itself, but simply by the scratching to which it has given rise. There is, however, one lesion — and this is a point of great interest — which is attributable directly to the insect itself. The pediculus corporis cannot bite the surface at any point, like the mosquito, but always protrudes its proboscis into an open follicle, and sucks blood from the blood-vessels at its bottom. When it is withdrawn a minute drop of blood follows, and this forms a plug, the end of which can be seen at the orifice of the follicle. This little red spot is too minute to be distinguished at any distance, but this minuteness renders it different from the lesion of any other skin affection whatever. It is to Tillbury Fox that the profession is indebted for the discovery of that clinical point in this affection. Many of us now recognize this minute lesion as pathognomonic of the affection here present, and I have had the opportunity of verifying the truth of the assertions of Dr. Fox in regard to it in dozens of cases. Indeed, were a patient to present himself to me with no other sign of lice whatever about his person except such minute red points as you can see upon the man now before you, if you look carefully for them, I should not hesitate to say that he was the subject of phthiriasis. It is a fact that patients, however humble, when they know that any

examination of their persons is to be made, almost always come to us wearing clean clothes, so that this diagnostic point may not infrequently prove of great service as corroborative evidence where neither the nits nor the insects are to be seen, though the marks of scratching may be present. As a general rule, however, nits can be found about the clothes, and here there is an abundance of them upon the man's shirt. These, you observe, are minute, white, glistening particles, and you ought all to be perfectly familiar with them.

The lesions left by the use of the nails are seen upon this patient, and in the excellent plates and photographs which I now submit to your inspection, to be numerous scratches, scratched papules, and small crusts and cicatrices. You will also notice that in some places a hyperpigmentation of the skin has resulted from the long continuance of the trouble. It is a matter of importance to know just where to look for the evidence of the presence of the pediculus, and to this point I will now direct your attention. Whenever pediculi corporis are suspected, the place *par excellence* to look for them is always upon the shoulders, and the next place is about the waist. This rule holds good even if the patient complains of greater itching in other localities than these. This form of phthiriasis is more apt to be met with in elderly people than in the young.

As to the treatment, it must be directed mainly to the clothing, or else the patient will never get rid of his trouble. The clothes may be either boiled or baked, but should, at all events, be submitted to a temperature as high as that at which water boils, or even higher, in order that all the nits may be thoroughly destroyed. As a local application I know of nothing better than the following, care being taken to have the ingredients well rubbed up together:—

R \bar{y}	Acid. carbolic.	3 ij.
	Potassæ causticæ	3 i.
	Aquæ	fl. 3 iv. M.

Such a wash is decidedly unpleasant to the pediculus, and you will find it very effective.

There are, as you know, three varieties of phthiriasis, — pediculosis corporis, pediculosis capitis, and pediculosis pubis. The first of these, as I have already intimated, is met with in dirty people, and most of the lesions are commonly seen about the shoulders and waist, where the clothing binds. Its secondary lesions are, ordinarily, scales, crusts, and excoriations, and sometimes the irritation produced by scratching is so great that a furuncular or pustular condition results, as is shown in these photographs which I hand you. The bite of the insect itself produces only a very trifling lesion, and, moreover, these minute specks which I before described and showed you are comparatively few in number, because at most of the points where the insect has thus pene-

trated the skin there is an irritation which provokes the scratching, and the marks of scratching obliterate or hide the minute blood point.

In making a diagnosis, in addition to these minute red points at the orifices of the follicles, you are to observe upon the body merely the results of scratching. The insects and nits are very seldom, if ever, found upon the body, but must always be looked for about the clothing.

The second variety, *pediculosis capitis*, you will find more commonly upon the back part of the head. The secondary lesions resulting from the presence of the insect there look very much like eczema, but the condition can always be distinguished from ordinary eczema by the fact that large numbers of nits are strung along the hairs like beads. The *pediculus* itself, too, can usually be very readily seen in the hair, and the glands at the back of the neck are also apt to be considerably swollen, in consequence of the irritation produced. This kind of louse is found not only among the poor and filthy, but sometimes among the highest classes of society. It can, for instance, be carried in a bonnet which at the milliner's may have been tried on by some one whose head was affected with *phthiriasis*, and I have not infrequently been consulted by patients suffering from this trouble, who had been using all sorts of ointments for months without the real source of the difficulty having been at all suspected. Whenever a case presents itself, therefore, in which there is an eruption upon the back part of the head, accompanied with intense itching, it is always best to examine very carefully for *pediculi*, or, at least, their nits.

These nits embrace the hair so firmly that they cannot be pulled off, but as they contain the eggs of the insect the only way of curing the patient is by their destruction. A comb, however fine its teeth may be, will not, as it is ordinarily used, remove them, but if the hair is combed "the wrong way, by holding the ends in the hand and combing toward the head, they can readily be detached, because they project in such a way as to be caught by the teeth when the comb is used in this direction. There is one remedy, however, which is absolutely infallible, and that is kerosene oil. It is certainly a very homely one, but it is always accessible, and I am in the habit of using it even in private practice, because it invariably cures the patient, and in the promptest manner possible. Twenty-four hours, I assure you, will be sufficient to make a complete recovery in the worst case you will ever see, if the following plan is carried out. I always tell the patient to go home and saturate the head with kerosene, next to wrap it up for four or five hours, and then soak it with kerosene again, after which it should be left wrapped up until the next morning, when the oil is again very freely applied. After the scalp and hairs have thus soaked in oil for twenty-four hours, the head should then be thoroughly washed, and all the trouble will be over, and the remaining raw places heal very rap-

idly under zinc ointment. The efficacy of the kerosene I believe to be due to a certain amount of naphtha which it contains, and which is fatal to the pediculi and, what is more important, to their nits. I never use a wash of bichloride of mercury for this purpose, on account of the danger involved, one case of death from this cause having already been reported.

The third variety of phthiriasis is pediculosis pubis. It is ordinarily confined to the pubes, but is occasionally met with, as I have myself seen it, about the eyelashes and eyebrows, the axillæ, and in the hairs of the breast. One case is on record in which the beard was affected in addition, but I have never seen such a one.

The pediculus pubis, on account of its peculiar shape, is known as the crab-louse, and it sticks so closely down on the hairs at their very exit from the skin that it is apt to escape detection unless very carefully looked for. It appears there more as a minute crust than as a living insect, and often holds on so firmly to the hair that it is very difficult to detach it, as with the point of a dull pen-knife. A gentleman recently consulted me who had been suffering for three or four years from what was thought to be eczema, but though all sorts of treatment had been resorted to he had never been able to get rid of the difficulty. On making a very careful examination of the pubes, I found hundreds of pediculi there, and even on the hairs on the scrotum, on its under and back surface, and the whole trouble was at once explained, and the relief afforded was prompt and complete. As in the other forms of phthiriasis, the lesions observed in pediculosis pubis are merely the results of scratching, and not due, except secondarily, to the bite of the insect. The nits may also be found, but they are fewer in number than in the head louse, and are located on the hairs quite near the skin.

Kerosene oil is equally efficient also in destroying this kind of louse and its nits, but as the agent is more difficult of application about the pubes than upon the head, I usually prefer to use citrine ointment (of one half strength) in its place, or strong white precipitate ointment. Unguentum hydrargyri, too, is very serviceable, but in employing that we run the risk of salivating the patient. This form of pediculosis is often very obstinate, and in order to effect a cure it might in some cases be necessary to shave off every hair on the part.

SYMMETRICAL GANGRENE OF THE EXTREMITIES.¹

BY J. COLLINS WARREN, M. D.

GENTLEMEN: The following case, which I present to you this evening, may be very briefly described, but is nevertheless of sufficient interest to merit some consideration, as it represents a type of disease

¹ Read before the Boston Society for Medical Observation.

brought about by a disturbance of the vaso-motor nerves, presenting a series of pathological changes which have not been generally recognized; in this country at least, as the component parts of a continuous chain of events:—

The patient, a rather feeble person, and of spare habit, presented herself at the Massachusetts General Hospital on June 27, 1878, with a peculiar condition of the tips of all the fingers and toes. She was a native of Scotland, a weaver, unmarried, and twenty-five years of age. The affection was of a character to arrest the attention at the first glance, and differed from anything hitherto observed by many who saw her. The seat of the disease was confined to the pulps of the fingers and toes, usually extending around the edge of the nail to the opposite side. Another striking feature was the color. The borders of the affected area resembled the semi-transparent purple of a hot-house grape. There was none of the reddish tint seen in intestine at certain stages of strangulation. The lightest shades were always essentially purple in color. As the centre was approached the hue deepened, until it was difficult to determine whether or not the tissue had assumed the characteristic color and condition of gangrene. The patient did not complain of much pain, but had become totally incapacitated for work, owing to the condition of her hands. She had been in good health until four months previously, at which time she suffered from frequent nose-bleed during two weeks. Soon after this she noticed that the tips of the fingers and toes became red. She had had a slight cough, and had been losing flesh, but emaciation was not marked, nor did she consider herself as suffering in any other way than from the condition of her hands and feet. An examination of the chest showed some dullness and râles at the apex of the left lung; the heart sounds were normal. There was no history of syphilis. A more careful examination of the finger tips disclosed the fact that the centres of one or two of these purple patches were gangrenous. This became more marked in a few days, and eventually several dry, black eschars, the largest of which was not larger than a ten-cent piece, came away, leaving a healthy granulating surface. In no case was the bone affected. The treatment consisted of the administration of iron internally, good food, and the application of resin cerate to the parts. On July 16th the record states that all but two of the fingers have had sloughs, and these two look as if they were going to slough. The toes have recovered their normal appearance. Although no complaint of pain was made, the patient always held the hands in an elevated position, as if this gave most relief. On August 15th, when she left the hospital, the granulating surfaces had all healed, and the fingers presented a red and shriveled look. There was no gangrene of the toes. The general condition at the time of discharge was good.

Symmetrical gangrene, as described by Maurice Raynaud,¹ is a variety of dry gangrene characterized by two prominent features,—the absence of any anatomical lesions of the blood-vessels, and the symmetrical development of the disease in the two halves of the body. It may be found in both upper or both lower extremities, or in all four, and occasionally the ears and nose are affected.

The earliest change seen in the diseased part is that termed "local syncope," a condition, however, perfectly compatible with health. The patient, generally a woman, perceives a pallor and coldness of one or more fingers. This change, known as "dead fingers," may last a few minutes or several hours. The exciting cause appears to be an exposure to cold, although but a slight lowering of the temperature is sufficient to produce it. It appears, however, sometimes to be emotional in character. The skin is apparently deprived of its blood, and its tem-

¹ Nouveau Dictionnaire de Médecine et de Chirurgie, vol. xv., page 636.

perature is below normal. The reaction which follows is frequently quite painful. A more advanced condition is known as "local asphyxia;" the pallor is followed by a cyanotic color of varying degrees of intensity. On pressure the color disappears, and returns very slowly, showing great feebleness in the circulation. The pain is now almost continuous, and in some cases may be compared to that accompanying onychia, particularly when reaction sets in. This condition resembles that seen in cyanosis, but in the latter affection we find organic disease, and there is no pain and no reaction. The clubbed finger nails of cyanosis, erroneously attributed by some authors to phthisis alone, is never seen in local asphyxia.

In the outset the disease is sometimes mistaken for chilblains, but the deepening color and pain soon set all doubt at rest. The fingers may become almost black, and minute blisters appear, particularly on the little finger, later on others, and situated generally at the extremity. The blister becomes filled with a sero-purulent fluid, breaks, and leaves an excoriation which may remain several days. The color begins now to return, the excoriation heals, and a little conical tubercle is left just beneath the edge of the nail. The improvement is, however, only temporary; the same changes recur, and may be repeated during a period lasting one or two years. In an advanced stage the ends of the fingers are covered with a number of little white scars, the skin is indurated, and they have a thin, sharp, withered look, as if they had been pinched in a vise, and had preserved the shape thus given to them.

If gangrene sets in at once there are no vesicles. A third or one half of the ungual phalanx may come away.

During the height of the disease the growth of the nail stops temporarily, and the interval is subsequently indicated by a grooved depression in the nail. The disease has not been known to terminate in gangrene when situated in the nose and ears. Cases cited below show this statement to be incorrect. Beyond the severe pain, upon which Raynaud dwells as a very striking symptom, we find little else to notice in the condition of the patient. No cardiac disease is found; possibly a slight souffle may be heard, but not of sufficient strength to indicate valvular lesions.

In well-marked cases the disease occupies a period varying from a few days to a month in developing; it remains at its height for about ten days, and convalescence may be fully established at the end of from three weeks to several months. In no case does death seem to have been caused directly by the disease. Occasionally, after one or two attacks, the condition becomes a more or less permanent one, and the part affected is continually cold and torpid. At times the skin of the back of the hands and fingers becomes thickened and rigid, and is not movable

on the subjacent parts. The fingers are held semiflexed and ankylosed. The two affections most likely to be mistaken for this disease are chilblains and senile gangrene. In the former we are not likely to find all extremities affected at an unusual time of the year. Senile gangrene is rarely bilateral; it extends much further; the characteristic condition of the arteries is usually present. It is easily distinguished from cyanosis depending on cardiac disease. Owing to the predominance of pain it has sometimes been mistaken for gout. The prognosis is favorable. If the stage of gangrene develops itself at the end of a week or ten days, it is probable that a complete recovery will follow the separation of the eschars. If, however, the disease does not reach this point, but comes and goes, there is danger that it will settle down into a chronic condition.

In four fifths of the cases the disease is found in women. In the great majority of cases it occurs between the ages of eighteen and thirty years.

As a low temperature is an exciting cause, we find it most frequently on the approach of the winter months. Not infrequently there may be premonitory symptoms for one or two winters, with return to health in the summer season, and a final termination in gangrene. In one case the disease was found to coexist with diabetes mellitus. Ordinarily we observe no special predisposing cause in the general condition of the patient. How are we to explain these peculiar changes in the vascular system?

It is well known that the quantity of blood in circulation in a given spot increases when the capillary walls are relaxed; that it is diminished, on the other hand, when the walls are contracted; and, when the cavity of the vessel is obliterated, the blood disappears from the part.

This *algidity* may terminate in reaction, — relaxation of the muscular fibres of the vessels, — or it may continue until gangrene takes place.

Symmetrical gangrene begins with a spasm of the capillaries, which may go back as far as arteries of considerable size (radial pulse).

In the simplest cases of spasm we have the "*dead finger*," a passing condition in which the circulation is reëstablished after a more or less painful period of reaction. This is "*local syncope*." The veins probably are contracted also. The phrase "*local asphyxia*" is used to denote a more advanced condition. The reaction which follows spasm is here incomplete. The veins having the smallest amount of muscular fibres relax first, and the venous blood flows back into the capillaries, but stops here, as the arteries are still contracted. It will be noticed that this change does not bring about that deep color which we find in an extremity which has been violently constricted. In the latter case the venous blood is forced back into the arterial system. As in local asphyxia, the reflux stops at the capillaries. There is more transpar-

ency in the color, a mixture of cyanosis and pallor, as it were. There is, of course, as the result of this condition, a certain amount of stagnation in the larger veins, and sometimes slight œdema.

On one occasion the author had actual proof of this arterial spasm in a case where temporary disturbance of vision occurred during the attacks; the ophthalmoscope showed a well-marked contraction of the central artery of the retina.

If the condition becomes a permanent one gangrene occurs. Other portions of the body are affected, of course, with this muscular spasm of the arteries, but it is only in the extremities which present a large surface in proportion to their calibre, and consequently readily lose heat, that the conditions are favorable for the death of the part.

How shall we explain the symmetrical character of the lesions? A consideration of the mode of origin, distribution, and action of the vaso-motor nerves may serve to throw light upon this point.

We now no longer look upon the sympathetic as an independent nerve having no communication with the cord. We find filaments of this nerve emerging from the cord in the anterior branches. The same phenomena of congestion which Bernard obtained by division of the sympathetic above the superior cervical ganglion can be obtained by certain sections in different portions of the cord. Experiments have shown that there exists a series of genuine vaso-motor centres ranged up and down the spinal axis. The actual origin of the vaso-motor nerves of given portions of the body has been determined with tolerable accuracy. Starting from this point the fibres in question follow those of the grand sympathetic, or, as in some cases, the cerebro-spinal trunks.

An experiment by Brown-Séquard throws light upon the special action of this nerve which is brought into play in the present disease. A section of one half of the spinal cord near the medulla is followed by a paralysis of the blood-vessels on the same side, and a permanent spasmodic contraction of them on the opposite side. There are also corresponding changes of temperature. It is clear that the vaso-motors on the divided side, having lost connection with their point of origin, are paralyzed, and a passive congestion takes place in the corresponding part, while the lesion of the cord, being a source of irritation to the adjacent vaso-motors of the opposite side, produces a spasmodic contraction of the vessels on that side. It is known that an intimate communication exists between the fibres of this set of nerves as well as in the fibres of nerves of voluntary motion.

Let us suppose now that an irritation is created in the central portions of the cord; it is easy to conceive how it would reach the vaso-motor fibres symmetrically disposed on each side of the spinal axis. If this excitation becomes permanent, if it go to the point of tetanization,

the phenomena of alidity occur ; one step further and the symmetrical gangrene is produced.

In order to understand how this alidity may be confined to one set of vessels, — for instance, those of the upper or lower limbs, — it is only necessary to suppose a central irritation occurring at a single point in the cord from which the vaso-motors of the particular region affected happen to emerge. This may be limited to a single finger of each side. It now remains to determine the way in which this irritation is supposed to act. The vaso-motor nerves are affected not only by direct irritation, as in the experiment alluded to, but may be also susceptible to reflex action. An example of this is the contraction of the vessels of one hand when the other is suddenly plunged into very cold water. A similar action is the sudden pallor produced in the face by severe pain inflicted upon some distant point. In the disease we are now considering it is probable that a similar chain of events takes place.

Inasmuch as this disease appears after confinements, or may show itself periodically at the menstrual epoch, it is but reasonable to suppose that the reflex irritation may take its origin in the uterus. In a later article¹ on the subject, Raynaud defines this disease as “a neurosis characterized by an exaggeration of the excito-motor power of the cord presiding over the vaso-motor nerves,” and he advises the application of “constant descending currents” to the spine. The excito-motor power of the cord is thus weakened, and the reflex contractions of the vessels are in consequence diminished.

A consideration of the reflex origin of this vaso-motor disturbance would suggest occasional phenomena, such, for instance, as are observed in traumatic inflammations, supposed to be due to reflex actions brought about by irritation of the cerebro-spinal nerves, and, in fact, we find this to be the case. Vulpian² has described, in connection with the above disease, a symmetrical congestion of the extremities which he considers as similar to the congestion of the skin seen in certain cases of neuralgia. It is possible, he thinks, that a sort of symmetrical neurosis of the peripheral nerves of the extremities occurs, causing by reflex action dilatation of the vessels of the parts. In using the term vaso-motor neurosis we must accept it in this sense only. The seat of the pain is in the sensitive nerves or in the tissue occupied by them, and the dilatation of the vessels secondary. Based on this mode of action is the theory of one observer³ that neuralgia of the ileo-lumbar nerve brings on congestion of the uterus and its appendages, and that metrorrhagia and leucorrhœa may be thus produced.

This view is certainly plausible, and the supposition had already oc-

¹ Archives générales de Médecine, 1874, page 5.

² Leçons sur l'Appareil vaso-moteur. Vulpian. Paris. 1875.

³ Cahier des Nevroses vaso-motrices (Archives générales de Médecine, 1863).

curred to me whether certain fleeting and capricious uterine pains, brought on frequently by emotional perturbations solely, might not be explained by a vaso-motor disturbance of the uterine vessels. The changes seen in the tongue in Dr. Mills's case, presently to be mentioned, are suggestive of such possibilities.

Billroth¹ had seen but one case:—

"A young, very anæmic man, without apparent cause, had first gangrene of the tip of the nose, then of both feet. After suffering for months he died; as on the patient, so on the cadaver, I could find nothing morbid beyond the excessive, inexplicable anæmia." Recently Dr. Medopil² reported a case under Billroth's care. The patient was a female, nineteen years of age. She was first seen by Dr. Billroth in September of the year previous. She then noticed that the fingers became dead and pale after washing in cold water. The tip of the index finger of the right hand soon became very painful, remained hard for a time, and finally mortified. The gangrene terminated in necrosis of the ungual phalanx. The middle finger of the same hand was next attacked with inflammation resembling paronychia, which did not extend beyond the radial half of the bed of the nail, and terminated in the exfoliation of small, dry, parchment-like crusts. A year later the index and middle fingers of the left hand were similarly affected, at this time all the fingers of each hand being cold and pale.

Dr. Charles K. Mills³ reports a case of "vaso-motor and trophic affection of the fingers," which evidently belongs to the chronic and recurrent form of "local asphyxia," and which he believes to be unique:—

The patient first noticed the symptoms of local syncope at the age of nineteen. The little finger suddenly became cold, white, and numb. Later, one or more fingers would on exposure to cold present a frost-bitten appearance. "The disorder persisted, growing gradually worse, until the ends of all her fingers and both thumbs were more or less involved." Six months later a small swelling formed at the point of the right thumb, which felt as if a splinter had run into it; a small abscess resulted. "Similar abscesses appeared from time to time in all her fingers and the other thumb." These recurred at intervals of two or three months. The first attack in each case caused great pain. When the patient came under Dr. Mills's care, in June, 1878, nearly four years after the first symptoms, there was a decided blueness of the finger tips. Once after dancing the tip of her tongue became bluish-white, and felt as if it had been burned with hot tea or coffee. Her troubles were always exaggerated by emotional disturbances. There was a presystolic murmur and signs of a cavity at the right apex. A careful series of thermometrical observations showed the temperature of the fingers to be considerably below the normal.

The author gives a large number of interesting minute observations, but I think I have made selections sufficient in number to show the identity of the affection with the one we are now considering.

Under the head of Chronic Vaso-Motor Hyper-Irritation, Dr. A. M. Hamilton⁴ describes an affection due to a "temporary spasm of the muscular coats of the small vessels of some limited spot, the site being usually a part of the hand." "The peculiarity is the limited blanching and coldness coming on without assignable cause, and finally subsiding,

¹ Wiener medizinische Wochenschrift, No. 23, 1878.

² Surgical Pathology, page 302, first American edition.

³ American Journal of the Medical Sciences, October, 1878.

⁴ New York Medical Journal, 1874.

to reappear perhaps after an uncertain interval," the fingers being chiefly affected, — "evidently our local syncope."

Dr. S. Weir Mitchell¹ gives a collection of cases illustrating a form of vaso-motor neurosis of the extremities, to which he gives the name erythromelalgia (*eruthros*, red; *melos*, a member; *algos*, pain).

The first series of three cases is described quite at length, and would probably be classified by Vulpian with those cases described by him as symmetrical congestion; indeed, one of Vulpian's cases is quoted. The patients were males, and the affection chiefly confined to the feet. The earliest symptom was a burning pain in the soles, especially on standing, and also a flushing of the part. The flushing is thus described: "In the graver examples the area of greatest pain in the soles or hands is distinctly and permanently marked by a dull, dusky, mottled redness, as if the smaller vessels were always over-distended." In the erect position "the foot gets redder and redder, the veins stand out in a few moments as if a ligature had been tied round the limb, and the arteries throb violently for a time, until at length the extremities become of a dark-purplish tint." Treatment was not attended with very satisfactory results. Dr. Mitchell is inclined to consider these and other cases which I shall presently allude to as an unrecognized type of spinal or cerebral disorder, possibly associated with distinct lesions of definite regions. His fourth case is a fair example of the disease we are considering. The patient was a merchant, twenty-nine years of age. The symptoms, briefly, burning pain in the cushions of fingers of left hand, later of right hand; finger ends darkly congested; at times similar pain in the feet; had had syphilis; no benefit from treatment. His sixth case is a still more striking instance: —

The patient was a woman, a Mexican, and was treated by Dr. Stillé, of Guerrero. She was twenty-nine years old; no organic disease; burning of tips of fingers of both hands on palmar aspect; fingers clubbed, nails thickened. "It seems as if the muscular and fatty portions had shrunk, and also as if the last phalanges had been absorbed."

The next case was that of a baker, twenty-two years of age. The symptoms were similar, but we noticed that he had in addition rare pustules on the hands, the agony caused by which seemed to be intense.

A case quoted from Sir James Paget is evidently one of local asphyxia, brought on apparently by excessive use of cold baths.

It is quite evident that many of Dr. Mitchell's cases belong to the group of "local asphyxias," and that some are, on the other hand, "symmetrical congestions."

Dr. T. A. McBride reported last spring to the New York Neurological Society a case of *digiti mortui*, and is the only American writer whom I have consulted who distinctly recognizes the relation of this affection to local asphyxia and symmetrical gangrene.

¹ American Journal of the Medical Sciences, July, 1878.

Fischer¹ reports two cases, one following intermittent fever. The cheeks, ears, and nose were the parts affected. The patient was a man forty-two years old. A second case followed an attack of typhus fever. The writer gives several theories as to the origin of the disease, but inclines to that of Raynaud. A case, reported by Christian, of gangrene of both feet, following malarial fever, deserves to be mentioned in connection with these cases.

Drs. Stewart and Holton² report a case of symmetrical gangrene caused by chronic endarteritis, the name being obtained from Ziemssen's *Cyclopædia*, Vol. VI., page 383, evidently not due to local asphyxia.

Dr. Bernard Henry describes a case of idiopathic gangrene of the four extremities, which, if not a specimen of the symmetrical disease of Raynaud, certainly merits mention here:—

The patient was a widow, forty-two years of age. She had led a very dissipated life, and had been treated for syphilis; had given birth to nine children, besides having had frequent abortions intentionally produced. She first noticed after washing a stinging sensation in the hands and feet. They were rendered more painful by scratching, and soon assumed a dusky red color. When first seen the disease was thought to be purpura. In the course of two weeks the affected parts turned black and mortified. These were the hands and forearms for about a third of their length, and the lower third of the legs and feet. The tip of the nose and the skin over both patellæ and the cartilages of the ears were of dark hue, and finally sloughed. There was great aversion to warm coverings. The gangrenous portions became mummified. The parts separated, and some were removed, but the patient died at the end of about two months. At the autopsy it was thought that there was some tendency to fatty degeneration of the heart, and apparently mitral stenosis; there was commencing cirrhosis.

A case very similar to this is reported by Dr. Thomas Camp³ under the title, *A Case of Supposed Ergotism*. Both legs, all the fingers, the ala of the right nostril, and the upper part of the helix of each ear were the parts affected. There was a peculiar eruption coming and going on different parts of the body. The patient eventually recovered. Ergotism was suspected in both of these cases, but there was no direct proof.

The following references are obtained through the kindness of Dr. J. S. Billings from the Index of the National Medical Library at Washington:—

Fischer. Arch. f. klin. Chir., Berlin, 1873, xviii., page 335. *Schonbae*. Hospitals Tidende Kjobenhavn, 1869, iii., page 17. *Favre*. Gaz. des Hôp., Paris, 1874, xlvii., page 347. *Bull. Norsk. mag. f. Luegevidensk*, Christiania, 1873, iii., page 695. *Le Fort*. Bull. Soc. Chir., Paris, 1872, third series, i., page 178. *Padiou*. Bull. des Tran. Soc. Med., Amiens, 1868, vii., page 66. *Jaccoud*. Jour. de Med. et de Chir. prat., Paris, 1875, xlv., page 198. *Gelabert*. Indep. Med., Barcelona, 1872-3, iv., page 283.

Under Gangrene affecting both Extremities, not called Symmetrical, see *Christian*. Va. Med. Monthly, 1876, ii., page 199. *Bishop*. Clinic, Cincinnati, 1873, iv., page 25. *Henry*, Med. Examiner, Philadelphia, 1856, xii., page 129. *Rademaker*. Louisville Med. News, 1876, i., page 183.

¹ Medical Record, May 11, 1878.

² Chicago Medical Journal and Examiner, December, 1878.

³ British and Foreign Medico-Chirurgical Review, July, 1855.

RECENT PROGRESS IN OBSTETRICS.

BY W. L. RICHARDSON, M. D.

The Ætiology of Face Presentations. — Dr. Mayr gives ¹ some interesting facts relating to face presentations. Out of 14,519 deliveries 0.73 per cent. were of the face, and 0.103 per cent. were of the brow. The relative number of first positions of the face to the second was as 1.4 to 1. The mean duration of the first stage of labor in primiparæ was 23.6 hours; in multiparæ 14.5 hours. The mean duration of the second stage was in primiparæ 12.5 hours, in multiparæ 1.26 hours. Rupture of the perinæum occurred in only seven cases out of one hundred and seven face presentations which were under his observation in the Munich Lying-In Hospital, but it happened in none of those in which the forceps had been used. Of the one hundred and seven mothers eleven suffered subsequently from some puerperal disease. Four patients who were delivered with forceps had later an attack of puerperal peritonitis, and three died; the result in the fourth case was unknown, the patient being removed from the hospital while dangerously ill. The general mortality in the Munich Hospital was 1.7 per cent., while that of face presentations was 2.8 per cent. As regards the children, fifty-two were male, and fifty-five were female. Of these 6.54 per cent. died during or shortly after delivery.

As regards the ætiology of face presentations Dr. Mayr was convinced that the greater the weight of a child in proportion to its length the more readily a face presentation is produced. There is also an excessive prolongation of the occiput and an increased maximum transverse diameter. Part of this may be produced during the delivery, but not all of it. The unusual length of the antero-posterior diameter, when compared with the maximum diagonal diameter, is a well-known characteristic of heads in cases of face presentation. Owing to this excessive projection of the occiput the leverage of resistance applied to the occiput is increased, and the heads so delivered had an increased biparietal diameter. The head is then grasped tightly at the brim in the biparietal diameter; its axis of motion, as regards the pelvis, will be therefore at this point, which is further back than usual, and the expulsive contractions of the uterus will cause the extension of the head, which produces the face presentation.

Treatment of Cracked Nipples. — Dr. Haussmann reports ² two cases in which he had treated cracked nipples with a solution of carbolic acid. Every two or three hours dressings soaked in a two per cent. solution of the acid were applied to the nipples. At first a solution of the strength of five per cent. was used, but it was found that the

¹ Archiv für Gynäkologie, xii. 2.

² Berliner klinische Wochenschrift, 14, 1878.

weaker solution was equally effective. The result of this method of treatment was an almost immediate relief from the pain. After each application of the dressings the patients complained of a slight sense of smarting throughout the breast. Care was taken to wash the nipples thoroughly before putting the baby to the breast. In the cases reported by Dr. Haussmann the mothers were able to nurse the children within a few hours after the application of the acid, and the nipples were entirely healed within two days.

The Treatment of Placenta Prævia.—In a paper recently read before the Medical Society of the District of Columbia, Dr. J. T. Johnson calls attention to the high rate of mortality observed in cases of placenta prævia, as regards both the mother and child. The frequent recurrence of hæmorrhages so exhausts the mother that when the time of actual labor arrives she is in no condition whatever to bear the hæmorrhage which usually accompanies the dilatation of the os. The child, too, for the same reason, is very frequently sacrificed, even when the mother's life is saved. He strongly dissents from the treatment generally adopted in such cases, and advises that in all cases where the existence of a placenta prævia has been clearly diagnosed, premature labor should be induced before the occurrence of exhausting hæmorrhages. In cases where labor has already begun, he favors the immediate introduction of a catheter, and the withdrawal of the liquor amnii. The uterus is thus at once provoked to greater activity, and, moreover, can act to a better advantage. The head, if that be the presenting part, is driven down, and, as the cervix dilates, the pressure of the head controls the hæmorrhage. The introduction of a sponge or laminaria tent, followed later by the use of Barnes's dilators, hastens the dilatation. In this way version may be avoided. Where version must be performed Dr. Johnson advises that bimanual version be tried, rather than that the hand should be forcibly carried within the uterine cavity through the imperfectly dilated os. In conclusion, he states that he is firmly convinced that in proper cases, and when seen in time, the induction of premature labor will save many lives, both foetal and maternal; and also, that when the above-mentioned gentle means of dilating and at the same time plugging the cervix are universally adopted, the fearful mortality in these cases will be greatly reduced.

Use of Disinfecting Injections into the Uterus after Delivery.—In our last report of progress we gave a *résumé* of several recent writings, all of which favored the use of disinfecting injections during the puerperal state. Since then two communications have appeared,¹ written by Küstner and Fritsch respectively. In both of these the attention of the profession is called to the danger which is liable to follow a too free use of disinfectants in washing out the cavity of the uterus after deliv-

¹ Centralblatt für Gynäkologie, xiv. 16.

ery. In the cases observed by these writers the symptoms were unmistakably those of acute poisoning. Dr. Küstner's case proved fatal, and at the autopsy it appeared that the uterus itself had not in any way been injured by the introduction of the syringe. Yet there had been suddenly developed unconsciousness, contraction of the pupils of the eyes, rapid respiration, dyspnoea, and a weak and scarcely perceptible pulse. The muscles of the face were convulsed, the head was thrown backwards, the jaws were fixed, and a cold sweat covered the patient. In from ten to fifteen minutes the patient improved considerably. Half an hour later the patient vomited a black vomitus, and the urine drawn by a catheter was black. The disinfecting solution used in this case was one part of carbolic acid to twenty of water.

Dr. Fritsch reports three cases in which most dangerous symptoms arose. In one of these cases the disinfectant used was salicylic acid, and in two carbolic acid. In all of them there was a sudden collapse, followed by unconsciousness and a very rapid pulse. In the two cases in which carbolic acid had been used there was observed the same discoloration of the urine. These three cases recovered. In all of them the uterus was imperfectly contracted.

Both observers regarded these symptoms as due to the very rapid poisoning of the patient by the entrance of the disinfecting agent into the circulation through the patulous sinuses of the imperfectly contracted uterus. They still strongly favor the use of a disinfecting irrigation of the puerperal uterus in all cases in which the attendant has reason to suspect any putrid absorption, but they both recommend that, in all such cases, the injection should be performed with the greatest care, and that especially the introduction of a forcible stream should always be carefully avoided.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

A. M. SUMNER, M. D., SECRETARY.

APRIL 1, 1878. *Syphilis*. — DR. G. H. M. ROWE read a paper on Mental Derangement from Syphilis, which was reserved for publication.

DR. NORTON FOLSOM doubted if in many so-called cases of cerebral syphilis there is any other relation or connection between the cerebral manifestations and the syphilitic poison than that which exists in other debilitating or degenerative diseases. We see in asylums patients suffering from insanity who have subsequently contracted syphilis without producing any change in the course of their mental symptoms. He objected to the term "cerebral syphilis," and thought it better to use the expression "insanity complicating syphilis."

DR. ELLIS thought that to show that syphilis is a potent cause of mental disorder, such as the reader has described, it would be necessary to prove that insanity is more common in those suffering from syphilis than in those not so affected; he doubted if this point had yet been established.

DR. C. F. FOLSOM remarked that he thought it impossible to determine definitely whether syphilis causes mental disease or not until we intimately know what that condition of the cells of the brain is that produces insanity. Gummata or other tumors, local inflammations, thickening of the membranes, osteitis and periosteitis, for instance, are all sometimes attended with cerebral derangement, and often not; why, however, we do not know, but we may reasonably conclude that the by no means infrequent cases of mental derangement which are not attended with much debility or general symptoms of ill health, and which recover rapidly under a judicious antisyphilitic treatment, are of syphilitic origin, or dependent on the pathological condition produced by that disease.

DR. ROWE referred to various articles written by Wille, Skae, Cluster, and Stewart, which seem to show that there are special symptoms indicative of mental derangement depending upon syphilis, and said that he noticed a remarkable similarity in the symptoms noted in his cases and in those reported in the above-mentioned authorities. Dr. Rowe added that there was a wide discrepancy in the conclusions derived from English and German observations regarding the frequency of cerebral derangement in syphilitic disease. One English writer asserts that one in forty of all cases of insanity is of syphilitic origin, while a German investigator in the insane asylums of Germany reports only one case out of nine hundred.

DR. BOWDITCH thought that we could never determine the relative frequency of the complication until each insane asylum had a pathologist connected with it. He asked Dr. Rowe how many were thus provided at the present time.

DR. ROWE replied that the number of insane asylums in the United States which have pathologists connected with them does not exceed six out of eighty; but the time was not far distant when the majority of enterprising asylums would have such an officer for the investigation of mental diseases.

Brain Tumor.—DR. C. E. STEDMAN showed a tumor, probably glioma, situated in the middle of the left hemisphere of the brain, and gave the following history of the case: The patient, a man forty-six years of age, was seized early in last December with a convulsive attack, losing consciousness and biting his tongue. This lasted nearly an hour, and recurred often during the following months. When first seen by Dr. Stedman, six weeks after the symptoms manifested themselves, his mind was clear, there was partial loss of sensation and motion of the right cheek, the orbicularis was unimpaired, and the tongue was protruded somewhat toward the right. There was partial aphasia and slight loss of the sense of taste. Large doses of bromide of potassium stopped the attacks, but his general health began to fail, the aphasia became complete, loss of motion on the right side followed, and he died three months after his first convulsive attack.

New Instrument.—DR. BAKER showed an instrument designed by himself

for measuring the vagina for the purpose of a proper application of pessaries. He also showed a flexible uterine sound made from delicate springs covered by india rubber, the external end of the instrument giving the reverse position of the uterine flexion.

Syphilis.—DR. J. B. AYER reported a case of necrosis of the frontal bone in tertiary syphilis. The patient, thirty-five years of age, contracted syphilis from her husband. The first history of the case was in November, 1871, when she suffered from ulcerated sore throat and cephalalgia. In a fortnight the uvula was destroyed, in spite of free applications of nitric acid. Under mercury and chlorate of potash gargle she did well until October, 1872, when abscesses formed on the outer side of the thigh. These continued to discharge and heal for over a year. In October, 1873, the cephalalgia returned. She became cross and irritable, and lost flesh rapidly. In April, 1874, coryza was well marked, and in November of the same year pieces of the turbinated bone came away. The patient had been taking iodide of potassium, but now mercury was added. This she continued to take for five months. In January, 1875, a slight swelling like a pimple appeared on the forehead over the left eyebrow. This broke a few weeks later, showing necrosed bone beneath. The opening gradually increased in size, and a little over a year ago a similar swelling appeared over the right eye, which opened and gradually enlarged. Carbolic ointment was ordered, but she became discouraged, and only used the ointment until last September, when she was persuaded to begin treatment again. Iodide of potassium was ordered, and the dose gradually increased, until she was taking twenty-three grains three times a day. She also used a nitric acid wash.

January 21st. The necrosed bone being movable, the patient was etherized at the Massachusetts General Hospital, and it was removed. Both tables of the skull were necrosed. The patient came out-of-doors in eight weeks, and is now attending to her duties in her shop. The wounds are slowly closing in around the edges. She has had a slight attack of erysipelas lasting two days, and an occasional headache, which yields to bromide of potash in a few moments. She has gained ten pounds during the past two months, and is greatly improved in every respect. The patient is now taking biniodide of mercury and iodide of potassium in a solution of gentian and cinchonia.

Tumor of Uterus.—DR. BUCKINGHAM showed a body weighing two or three ounces, which had been examined by Dr. Fitz and pronounced fibroid tumor of the uterus. It came from a woman of fifty-two, who had been under treatment since the middle of January, at which time she was seen by Dr. Chadwick with him. The uterus was distended so as to be impacted in the pelvis, and to cause great annoyance by pressure on the urethra. She was given twenty drops of the fluid extract of ergot three times a day, which caused no great annoyance for three days, when the pain became severe and pretty constant, so that although the ergot was stopped she was unable to sleep without an opiate. The pain disappeared in the course of ten days, and towards the end of February the ergot was resumed in ten-drop doses, gradually increased to fifteen, when shreds began to come away, and two weeks later the present mass was expelled after three hours' pain, since which she has rapidly gained.

APRIL 21, 1878. *Official and Unofficial Preparations of Medicine.* — DR. ROBERT AMORY read a paper on Certain Facts in Regard to Official and Unofficial Preparations of Medicine, as follows: —

I visited four of our principal pharmacutists in Boston, — one in the central portion of the city, one at the West End, one at the South End, and one in Roxbury. I endeavored to select those pharmacists who were most ambitious in the professional standing of pharmacy. After an examination of their prescription books, covering the prescriptions for one month which they had actually dispensed, I subdivided these into the following six classes: (1.) Those which contained unofficial preparations; in other words, those whose formula is known, but which are not recognized by the United States Pharmacopœia. (2.) Those which contained certain proprietary medicines, or, in other words, trade-mark preparations, such as Horsford's acid phosphate, etc. (3.) Those prescriptions which called for proprietary medicine alone. (4.) Those composed of private prescriptions, known, for instance, only to the prescriber and to the dispensing pharmacist, but not published. (5.) Those containing only United States Pharmacopœia preparations. (6.) Preparations according to any other national Pharmacopœia.

By reference to the accompanying statistics of two thousand six hundred and seven prescriptions, we find that less than one fifth are unofficial, and less than three fourths (sixty-five per cent.) are official, whereas seven per cent. are proprietary or patent medicinal preparations. A careful examination of this table will show that our Pharmacopœia in seven years and a half after its conception covers only sixty-five per cent. of the physicians' prescriptions dispensed by our best druggists. This indicates one of two things, — that our physicians are unfamiliar with the Pharmacopœia, or that the latter does not answer the requirements of the medical profession.

	Number.	Per cent.
Class I. (unofficial)	587	23
Class II. (proprietary mixed)	101	4
Class III. (proprietary only)	87	3
Class IV. (private)	24	1
Class V. (official)	1720	65
Class VI. (other Pharmacopœias)	88	3
Total	2607	100

Diphtheria and Erysipelas. — DR. F. C. SHATTUCK read a paper on An Outbreak of Diphtheria and Erysipelas in a Small Hospital, which was published in the JOURNAL July 18, 1878.

DR. AMORY considered the question of diphtheria an open one. In his limited experience, during the past winter, of four cases, — three in one house and one in another, — the fact that these children, for weeks prior to the diph-

theria, never left the premises of their residence led him to think that the disease was idiopathic, and not imported. In the house where the three cases occurred, the odors from a privy vault could be perceived. In the other case there was no malarial cause that could be found, the child not living in a room adjacent to any drainage, nor was any other member of a large family in the same house sick with the same disease. Of course, communication between the sick child and most of the family was prohibited and faithfully prevented.

DR. BOWDITCH said that he felt the deepest interest in this paper, and asked why a patient should be admitted into a hospital with a patch in the throat.

DR. SHATTUCK responded that it subsequently proved to be a mistake. He had seen many cases of follicular sore throat which proved not to be diphtheria.

DR. BOWDITCH asked what examinations were made of the drains in this case, and how such an examination could be made. He also wanted to know if there was any examination of the soil under the house.

DR. SHATTUCK stated that there was no examination made under the house. He considered the peppermint test a good one. He had asked Dr. Folsom if he would come and examine the house drains; but he said it was of no use if the inspector went over the house, which he did, and found the drains in perfect order.

DR. BOWDITCH called the society's attention to the condition of the soil found under Marlborough House, the residence of the Prince of Wales. He asked Dr. Shattuck if it would not have been well to have disinfected the wards thoroughly.

DR. SHATTUCK replied that there were pans containing a solution of carbolic acid kept in the wards.

DR. BOWDITCH remarked on the local epidemic of diphtheria which occurred at Vergennes, Vt., where for the space of one and a half square miles almost every child had at least sore throat. Sometimes there was no membrane. No child from a house where there is diphtheria should be introduced into another house where there are children. He asked Dr. Shattuck if erysipelas and diphtheria ran together.

DR. SHATTUCK stated that he could find no statements about this in any authority which he had consulted, but found that erysipelas and diphtheria were classed as filth diseases by some sanitarians.

DR. BOWDITCH wished to know if the same cause produced them.

DR. SHATTUCK replied that in this case the affections seemed to depend on the same or allied causes.

DR. BOWDITCH cited the case where the poison was supposed to have been carried in the clothing of a father from the funeral of a case of diphtheria to his own family.

DR. E. G. CUTLER spoke of a case which occurred under his charge at the Carney Hospital, where a woman having had diphtheria came into the hospital because she could not be taken care of outside, and was convalescent in a short time. In about three weeks a child who had never come in contact with this woman or the nurse who attended her, but who was allowed to play out

of the hospital, was taken with diphtheria, and for two or three days before it was isolated was in the general ward with several patients suffering from phthisis and other debilitating diseases, but none of them had a single symptom of the disease. Both the woman and child recovered, and both had paralysis of the soft palate. The drains and traps in the establishment were examined and found in perfect order.

DR. KNIGHT asked if the period of incubation in the second case of erysipelas in Dr. Shattuck's paper was not too short for communication from the first case.

DR. SHATTUCK replied that perhaps it was too short.

DR. KNIGHT thought that the physician might have carried the contagion.

DR. SHATTUCK stated that the nurses and patients were isolated, and the physician made his visit on those affected last. The soiled linen, etc., was washed separately, and everything was done to prevent the spread of the disease.

DR. KNIGHT and DR. WILLIAMS both said that erysipelas was very readily transmitted in hospitals.

DR. BOWDITCH, in answer to Dr. Knight, said that the first case that appeared in the almshouse during the epidemic at Vergennes, above alluded to, came without any warning. The children of three families residing near, and who had helped the patient home from school, where it had been taken ill, had mild sore throat without deaths, and after that in five or six weeks the epidemic burst out suddenly a quarter of a mile away.

DR. CHARLES P. PUTNAM said that while it was our duty to search after the sources of infection, it was also fitting that we should not be too ready to accept theories about it that were not fairly proven. He thought there was but little reason to think diphtheria very contagious, or that it was ever carried in the clothing. He had seen diphtheria in a tenement house, where there were seven cases at the same time in the upper and lower parts of the house, while the middle part had escaped. He had also often been over children affected with diphtheria a large part of the day, and must have had his clothes thoroughly saturated with it, if that be possible, and yet it had never occurred in other children he had seen at the same time. He asked if Dr. Bowditch had not met with cases in Vergennes, in which diphtheria had sprung up at a distance from other cases, when he had not been able to find out its means of conveyance.

DR. BOWDITCH thought there were facts enough proved to warrant our saying that diphtheria is contagious, but he was not sure that it could be asserted that it might be carried in one's clothes. He thought that with any disease where there is doubt as to infection, the physician should be very careful about going to other patients without taking precautions. Some are not in a condition to take disease, but we should treat all our patients as if they were susceptible. He also spoke of the rules adopted by him over twenty years ago in regard to vaccination, namely, to be very particular not to take any virus from an infant who had or had had any chronic eruption.

DR. AMORY said that in the House of the Good Samaritan, some years ago, there was a case of scarlet fever in ward A. It was moved to ward B, and no other case made its appearance.

DR. RICHARDSON stated that the so-called peppermint test was considered by the Board of Health a very certain method of detecting defects in house drainage. It was very diffusive, and in one case in which he had examined a house the smell from the peppermint put into the basin of an upper water-closet was noticed in half a minute entering a bed-chamber on the same floor through a ventilator. It has been the rule of the Board of Health to have every house carefully examined in which a case of diphtheria is reported. In a very large majority of these houses a defect in the drainage has been discovered. In nearly every house in which a fatal case has occurred a defect has been found.

DR. AMORY and DR. BUCKINGHAM both had had a case where no defect had been found, and yet a death had taken place from diphtheria.

DR. MINOT asked if the soil-pipes were open at the roof.

DR. SHATTUCK replied that the gutters were connected with the drain, but that there was no direct communication between the soil-pipe and the open air.

Hypertrophic Cirrhosis of the Liver. — DR. O. W. DOE reported the following case of Hypertrophic Cirrhosis of the Liver, and showed the specimen :

The patient, a man thirty-two years of age, entered the City Hospital April 11, 1878, in a semi-moribund condition. His friends gave the following history of his illness so far as they knew : During the past ten years he had drunk freely of liquor, though he had never suffered from delirium tremens. Last summer he began to lose flesh very rapidly, losing fifty pounds in three months. Since then he had complained of feeling very weak, and they noticed about four months before entrance that his skin was becoming jaundiced. On April 7th he was quite "shaky," and had several chills. For a week before this he had been drinking unusually hard, and had taken considerable laudanum in his whisky. On the 8th his mind seemed to be wandering, and two days later he was seized in the morning with active delirium, and in the afternoon became unconscious, and was reported to have had a convulsion, the urine having been very scanty in amount for two days previous. At the time of entrance to the hospital his pulse was 132, easily compressible ; temperature 101° F. He was wholly unconscious ; the pupils were slightly dilated, but responded freely to light. His respiration was 28 in the minute, loud and labored. The abdomen above the umbilicus was occupied by a hard, resisting mass extending to a line drawn vertically through the left nipple. There was no ascites, and no œdema of the extremities. The heart sounds were obscured by the loud respiration. Urine drawn by the catheter showed a specific gravity of 1020 ; albumen, one fourth of one per cent. ; a sediment of blood, yellow granular matter, granules, and epithelial and hyaline casts in abundance. He gradually sank, and died twenty-six hours after entrance.

At the autopsy the heart was found to contain numerous ecchymoses under the visceral pericardium. Slight atheromatous degeneration of anterior curtain of mitral valve. Slight stenosis of aortic valves. It weighed one pound six ounces.

The kidneys were large and dense, the cortex being twice the natural size. One weighed eleven and a half ounces, the other ten ounces. The weight of

the spleen was two pounds fourteen ounces. It was dark, congested, dense to the touch, and measured nine inches in length, six inches in width, and two and a half inches in thickness. The liver weighed ten pounds, and measured eighteen inches transversely and seven and a half inches vertically, and on section presented a nodular appearance, with numerous protuberances of greenish-yellow color, evidently hypertrophic cirrhosis.

DER ALCOHOLISMUS.¹

THIS work, which we have received from the chairman of the State Board of Health, is a valuable contribution to the literature of this subject. Anything which throws light on the many questions involved in its discussion, questions of interest alike to the political economist, to the physician, and in fact to any one who has the interests of his fellow-men at heart, should be welcomed. We are especially glad to find in the work before us such marked evidences of earnest, faithful work.

The author, in his position as physician to one of the largest prisons in Germany, has had abundant opportunity to observe the effects of which he writes, and at the same time his training as a scientific man has preserved him from advancing those extreme, one-sided views which are only too apt to characterize enthusiastic writers on this subject. While recognizing in general the evil effects of the use of alcohol, he is able to judge intelligently of its value under certain conditions. He is in a position, too, to estimate the result of the efforts which have been made to reform the abuses, and to point out which have proved and are proving successful.

The book is a fairly exhaustive treatise on the subject. In the preface the author says: "This work will present the physiological and pathological effect of alcohol upon the individual economy, and will determine the value of alcohol as a food, as a luxury, and as a medicine; it will endeavor to show what peculiarities the consumption of alcoholic beverages in the different countries among the various peoples and races presents, and what influence it has upon the social economy, and upon the physical, mental, and moral life of the nations; finally, it will speak of the means which have been used in the various states for the control of intemperance, and will notice the results which have been obtained with them." The introduction refers to the almost universal use of some form of stimulant, and mentions some of the questions which are answered by facts derived from statistics and experiments, in the body of the work, which is divided into three parts. The first treats of alcohol, its discovery, its source, and its properties, and its effects upon the individual economy. These last naturally divide themselves into the physiological and pathological, and are fully treated of. The absorption of alcohol, its physiological effect upon the blood, the circulation, respiration, nervous system, digestion, secretion of the kidneys, metamorphosis of tissue, and, finally, its excretion, are

¹ *Der Alcoholismus, seine Verbreitung und seine Wirkung auf den individuellen und socialen Organismus, sowie die Mittel ihn zu bekämpfen.* Von DR. A. BAER, Königlichem Sanitäts-Rath, und Oberarzt an dem Strafgefängniss (Plötzensee) bei Berlin. Berlin. 1878. Verlag von A. Hirschwald.

thoroughly worked out, the points of dispute fairly stated, and with constant reference to the literature of the subject the most probable conclusions are given.

Under the pathological effects the author considers the acute fatal alcohol poisoning and the chronic alcoholism. The changes which occur in the economy from the abuse of alcohol, and which constitute chronic alcoholism, are general and special. The changes in the blood and the abnormal deposit of fat, so-called "*polysarcia potatorum*," are spoken of as examples of the first. Where such general changes occur it is no wonder that of the various organs of the body none seems exempt from the deleterious effects of the long-continued use of alcohol, and that each in its turn is the seat of most serious pathological lesions.

To complete this section of his work the author looks at alcohol in its three-fold aspect of food, luxury, and medicine, and in this connection discusses important and interesting questions. Only in the very limited sense that under certain conditions it hinders the destructive metamorphosis of tissue can alcohol be considered as a food.

For its use as a luxury (that is, by persons in health), there is more to be said, though even here the limits within which it may with advantage be used are, according to our author, very narrow. He shows by physiological arguments, by the testimony of those who have had the greatest experience, and by facts of history that its use in cold climates and in warm is contraindicated; farther, that the popular idea that alcohol increases the power for work is wrong, with the important exception of the powerful stimulus it may give for a brief exhibition of energy, that its regular use in the army is prejudicial to health and to discipline, and that at the different stages of life, even in old age, when the powers are failing, it should be used only as a medicine. Here we find its true use, and Dr. Baer shows its value most clearly, especially in lowering the temperature in cases of fever. He completes the first section of the work by considering briefly the three principal forms under which alcohol is consumed, — brandy and other strong liquors, beer, and wine. Only against the first does the author speak as productive to any extent of alcoholism; the other two, consumed in moderate quantities, not only are healthful, but are the most effectual means of limiting the consumption of the stronger liquors.

The second division of the work, which treats of "the consumption of alcohol and its influence upon the social economy," is divided into three parts. The first speaks of the spread of drunkenness and of the consumption of alcoholic beverages in the different countries, the second of alcoholism and its influence on the physical life, and the third of its influence on the national prosperity and morals. The first is a most careful and useful study of the amount of alcoholic drinks produced, the amount exported or imported, number of places where they are sold relative to the population, and the amount of drunkenness. The second part shows in what ways alcoholism affects the physical welfare of a people; first, by inducing a degeneration of the race; second, greater predisposition to disease; third, greater mortality from alcohol poisoning, delirium tremens, accidents the result of drunkenness, and suicide; and fourth, a tendency to shorten life. The third part, which treats of alco-

holism and its influence on the prosperity and morals of the people, shows the relation between drunkenness and poverty, maintaining that the latter is a result of the former; farther, that it is a cause of ignorance, of immorality, and of crime; and, finally, that it is one of the principal causes of insanity.

In the third division of the work the author treats of the means of controlling alcoholism. He speaks very fully of temperance and total abstinence societies and their work, giving a history of their beginning in this country, and the similar efforts which have been made in other countries in more recent times. The author acknowledges that something has been accomplished by them: that they have at least proved that alcohol is not necessary for the healthy existence of the human being, and have given in the upper classes an example of moderation and abstinence which has had a powerful effect upon the lower classes. But he doubts whether, as such societies are now constituted, they will accomplish much more for the cause.

Next, he gives an interesting and thorough account of the various legal measures which have been adopted in the several countries for the control of the production and sale of alcohol, the various prohibition and license laws, duties on spirituous liquors, etc., and also the methods for directly repressing drunkenness by means of regulations affecting the seller of such liquors, and those directed against habitual drunkards. As one of the means for reforming the latter class the author refers at length to our inebriate asylums, and most heartily acknowledges the good work they have done.

As to the means which indirectly affect this question, the author speaks of the substitution of beer and wine for stronger liquors, and considers this as one of the most effective means for combating the evil. Concern for the welfare of the lower classes and the more general diffusion of knowledge throughout the community are mentioned as of importance.

As will be seen from the above sketch, the book is an exhaustive one, treating of the subject in all its phases, and enriched by statistics from all sources. For his facts about this country the author expresses himself as greatly indebted to Dr. Bowditch's articles in the annual reports of the State Board of Health of Massachusetts for 1871 and 1872.

In conclusion, we can most heartily recommend the book to any one who desires a fair and impartial statement of the present aspect of this much-vexed question, and could wish it were in the hands of all who have to legislate on this important subject.

F. H. D.

LIEVING ON THE TREATMENT OF SKIN DISEASES.¹

THESE notes, first prepared by the author for private circulation amongst the students of his class at the Middlesex Hospital, were published at their request, and have been reissued with a few trivial additions in successive editions. They were, no doubt, of value to them as suggestive of the fuller instruction received in the class-room, but they are of comparatively little worth

¹ *Notes on the Treatment of Skin Diseases.* By ROBERT LIEVING, A. M., M. D. Cantab. F. R. C. P. London. Fourth Edition, revised and enlarged. New York: William Wood & Co., Publishers. 1878.

to others. As we have before said of similar works, it is difficult to see the object in publishing books of this limited and partial scope, because the same information in better form can be obtained in the complete treatises which should be in the possession of every student and practitioner.

LATHAM'S SANITARY ENGINEERING.¹

A SECOND edition of this most excellent treatise has just been published, after having been carefully revised and enlarged to the extent of nearly two hundred pages, so as to admit of the changes and additions required by recent advances in sanitary science. We wish it were in our power to place a copy in the hands of every board of health in the State; for we know no other work containing so clear, concise, and full a statement of the points most essential for physicians and sanitarians to know in connection with drainage of houses and sewerage of towns; and there is constantly fresh evidence that such knowledge is very much needed.

JACOB BIGELOW.

SCARCELY a week has passed, and we are again called upon to pay a tribute of respect to one of the most prominent members of our profession,—one who bears a name distinguished not only in his State but throughout the country, not only to-day but from the opening of the century. Dr. Jacob Bigelow died at his residence in this city on January 10th, at the age of ninety-one years. The oldest member of the Massachusetts Medical Society, and one of a group of prominent men whose lives are intimately connected with the early history of medicine in this country, his death, after a long period of separation from his professional brethren, owing to the infirmities of his great age, brings vividly back to the men of to-day a momentary glimpse of the almost-forgotten past only to separate us more completely from a departed generation. Born but a few years after the Revolution, and graduated from Harvard in the class of 1806, his literary career began as early as 1814 with a work on botany, entitled *Florula Bostoniensis*, which to this very day is the most complete work of its kind, and the standard authority. It is not our intention to enumerate the versatile character of his talents and works; we hope at some future time to present more extended reminiscences of his early life to our readers. He was already a professor in 1815, and a few years later his beautiful plates of American Medical Botany made their appearance. His early lectures on the application of science to the useful arts gave a bent to his tastes and views, which ultimately terminated in his participation in the inauguration of the Institute of Technology. Recognizing the great importance of suitable provision for the burial of the dead of large cities at some point removed from the centre of population, he became the founder of the beautiful cemetery of Mount

¹ *Sanitary Engineering. A Guide to the Construction of Works of Sewerage and House Drainage, with Tables, etc.* By BALDWIN LATHAM, C. E. London: E. and F. N. Spon, 46 Charing Cross, and New York, 446 Broome St. 1878. Pp. 559.

Auburn, which has since been a model for similar burial-places throughout the country. The architectural beauties of the place are to be credited to him, he having made all the designs. The colossal sphinx was his final gift, and remains a suitable monument to his public-spirited labors. Among his medical writings, that which exerted the greatest influence upon the practice of the day was his work on self-limited diseases, which produced a marked change in the views held in regard to the treatment of acute diseases at that time. His mind, eminently conservative, exercised a healthy restraint in accepting with reserve and caution new theories on the actions of drugs or the treatment of disease. But it is his intimate association with all that preparatory work which bears fruit to-day in a society, and a school serving as models to the country, and a standard of high professional tone and culture which endears his name to the colleagues he has left behind. His name will hereafter be grouped with those whom we all love to reverence, whose work will soon be celebrated at our approaching centennial, and whose refined character it should be the ambition of our young men of to-day to emulate. His virtues and great abilities, perpetuated as they have been in two succeeding generations, called forth some eloquent remarks from Dr. Oliver Wendell Holmes, who occupied his usual lecture hour on Friday last with a tribute to the memory of the deceased, such as he alone is able to give.

A BOARD VERSUS A DEPARTMENT OF PUBLIC HEALTH.

WHEN we commented in our last number upon the Lamar Bill for establishing a department of public health, we had not yet learned the result of the meetings at Washington of the executive and advisory committees of the Public Health Association.

This week we are fortunate enough to be able to present a very interesting letter from Dr. H. I. Bowditch, who attended one of the meetings in an official capacity, giving an account of what passed, and of the conclusions arrived at by the members present at those meetings; and we commend to the attention of our readers the memorial of the Public Health Association on congressional legislation affecting the public health, which is to be found at the end of our present number.

We are glad to see that there is an almost unanimous opinion among those best qualified to judge as to the very objectionable character of the Lamar Bill, and we heartily concur with Dr. Bowditch's letter, and with the memorial in deprecating any hasty action on the part of Congress. The proposal for a provisional national health commission is a good one if taken in connection with the suggestions as to the manner of its appointment. In any plan for a permanent national public health organization the advantages seem to us to be greatly on the side of a board rather than of a department, and of any schemes which have as yet come under our notice for such an organization, that elaborated by Dr. Bowditch appears to meet the difficulties and to avoid the dangers the most satisfactorily. As to the yellow fever question, we cannot but think that if the axe is really to be laid at the root of the tree

the disease should be studied and attacked where it is endemic, and from whence it is often, if not always, brought to our shores. Here we should find our real quarantine.

Any further remarks of ours in connection with this letter and memorial would be superfluous, but we again earnestly urge all who have influence either with societies at home or with legislation at Washington to read these documents carefully, and to use their influence accordingly.

MEDICAL NOTES.

— We are glad to see that the Board of Health has passed the following regulation:—

Ordered, That no salt, or mixture of the same, shall hereafter be sprinkled, scattered, or put upon any street, sidewalk, lane, or alley of the city, without the written permission of the Board of Health. C. E. DAVIS, JR., Clerk.

It is quite time that such an abuse should be done away with.

— We extract what follows from a private letter received from a naval officer now stationed at New Orleans: "I suppose you see by Northern papers how conflicting the testimony is in regard to yellow fever. It looks as though an ignorant man could form about as good an opinion on the subject as those who have made medicine a study. Yellow fever and bulldozing are alike in this respect,—both have men to swear, point-blank, to opposite theories and facts. In one case there is jealousy among the physicians, in the other among the politicians."

— Mr. Burdett, in his excellent book on Cottage Hospitals, quotes this simple plan for the preservation of ice in the sick room: "Cut a piece of flannel about nine inches square, and secure it by a ligature round the mouth of an ordinary tumbler, so as to leave a cup-shaped depression of flannel within the tumbler to about half its depth. In the flannel cup so constructed pieces of ice may be preserved many hours; all the longer if a piece of flannel from four to five inches square be used as a loose cover to the ice cup. Cheap flannel, with comparatively open meshes, is preferable, as the water easily drains through it, and the ice is thus kept quite dry. When good flannel with close texture is employed, a small hole must be made in the bottom of the flannel cup; otherwise it holds the water, and facilitates the melting of the ice, which is nevertheless preserved much longer than in the naked cup or tumbler." In a tumbler containing a flannel cup made as above described, of cheap open flannel, at ten pence a yard, it took ten hours and ten minutes to dissolve two ounces of ice, whereas in a naked cup, under the same conditions, all the ice was gone in less than three hours.

— Professor Von Langenbeck, of Berlin, recently celebrated his sixty-eighth birthday. It is thirty years since he succeeded the celebrated Dieffenbach, and is still vigorous. — The order of the Iron Crown of the third class has been conferred on Professor Späth, of Vienna. — Professor Lichtheim has charge of the internal clinic in Berne for the present winter. — Professor Hitzig will soon enter the faculty at Halle, and enter upon his duties as director

of the lunatic asylum of that city. — In Paris Professor Marey was recently elected as successor of Claude Bernard in the Academy of Sciences by forty votes (Paul Bert fifteen, Charcot three). — Prof. Henri Gintrac, of Bordeaux, is dead. — Jacob Moleschott has been elected professor in the University at Rome, Italy. — Fordyce Grinnell, M. D., physician to Wichita agency, Indian Territory, reports the removal by himself of the lower portion of the left lung of an Indian boy eight years old, who had been wounded by a barbed arrow, and had pulled out this portion of the lung with the arrow. The latter penetrated between the fifth and sixth ribs, a little to the left of the median line. Twenty-four hours after the injury, the doctor saw the case. Meanwhile the "medicine man" near at hand had failed to cause the lung to return by his enchantments. When the doctor arrived the protruded portion of lung was congested, and fast becoming gangrenous. The extended portion of lung was ligated and removed; the cut surface touched with perchloride of iron, and returned within the small opening made by the arrow. The portion of lung removed was four and one half inches long and two and three fourths inches broad at its widest part. Some degree of suppuration took place, and two weeks after the ligature came away with a quantity of pus, since which the boy has steadily improved, and is now beginning to resume his wonted sports.

— A case is related of a cavalry soldier whose horse fell upon him, causing instant death. The right auricle was ruptured, and was the only lesion found. The writer remarks that true traumatic rupture of the heart is rare; that is to say, rupture produced by external pressure or shock, without aperture in the thorax, and with perfect integrity of the organ in all its parts.

— In the case of *Aiken vs. The Illinois State Board of Health*, the appellate court has just rendered a decision sustaining the ruling of the lower court, and thus further confirming the board in its right under the law, for unprofessional conduct, to deprive a practitioner of his license to practice.

— Dr. Ortille reports the following case in the *Bulletin de Thérapeutique*: A man sixty-two years of age, who for some time had suffered from symptoms of cerebral thrombosis, dizziness, disturbances of vision, and formication, was one day suddenly prostrated as the result of an embolus. Friction, revulsives, and stimulants were resorted to, and within a few weeks the hemiplegia also disappeared. The attack was accompanied by vomiting, which lasted for twenty-four hours, and this was succeeded by hiccough, for which almost every conceivable agent was resorted to in vain. As the singultus continued even while the patient was sleeping under the influence of a subcutaneous injection of morphia, his strength failed rapidly. The attending physician now made a hypodermic injection of 0.025 muriate of pilocarpine, when profuse diaphoresis and a copious flow of saliva came on, and the singultus quickly ceased.

The author claims that this is the first time this preparation of jaborandi has been tested in so rebellious a case, and bespeaks for it a careful examination in the future.

PHILADELPHIA.

— During the year the Pennsylvania Society to Protect Children from Cruelty has continued its noble work of ameliorating the sufferings of those who are too young to defend themselves from injustice and inhumanity. The cases that came before the society last year involved the custody of 980 children,

of whom 274 were taken from parents and guardians, and suitable and comfortable homes provided for them in private families and asylums. Seventy-five persons were taken into custody for brutal treatment. In several cases young girls have voluntarily sought the protection of the society against the dishonoring greed of their parents.

—The Pennsylvania Hospital for the Insane, near Norristown, is rapidly progressing. A modification of the plan has been adopted, by which some existing farm structures shall be used temporarily as the administration building, it being expected that the wards will be ready for use and turned over to the state authorities during next summer.

—The total mortality of Philadelphia for 1878 was 15,498, a decrease of 606 as compared with 1877. Of these there were males 7751, females 7747, including 3828 boys and 3478 girls. The number of deaths of children under five years of age was 5853, and of persons over seventy years 1763. Among the principal causes of death were consumption, which is credited with 2430; pneumonia with 809; convulsions, 702; heart disease, 524; and croup, 373. Of the zymotic diseases scarlet fever carried off 544, diphtheria 449, and typhoid 370.

It is curious to observe that the proportion of women who live to attain the age of eighty and over is almost twice as much as in the other sex. Of the 688 valetudinarians whose deaths were announced by the *Public Ledger* last year the following table will give the relative number and the sex at each age:—

Ages.	80	81	82	83	84	85	86	87	88	89	90	91
Men.	34	39	24	29	24	18	21	11	12	15	9	2
Women.	65	36	50	22	43	29	33	23	26	15	17	8
	99	66	74	51	72	47	59	37	38	30	26	10
Ages.	92	93	94	95	96	97	98	99	100	101	102	107
Men.	9	3	5	4	1	4	3	2	1			=261
Women.	12	6	6	4	2	4	1	1	5	1	2	1 =425
	21	9	11	8	3	8	4	3	6	1	2	1 =688

Of those living beyond the age of ninety years there were forty-three men and seventy women, while in ten centenarians it is seen that nine were women.

—The old Philadelphia School of Anatomy, formerly on Chant Street, so well known to earlier generations of Philadelphia medical students, has been revived under the charge of Dr. John B. Roberts, and shows considerable vitality.

CHICAGO.

—Prof. W. S. Harris has recently made chemical analysis of quite a number of samples of starch from six or more American manufacturers without finding the slightest adulteration in any of them. The specimens included both starch used for food and that used for laundry purposes. He was led to make these examinations by a recent report of an English chemist to the effect that many samples of starch of English manufacture had been found extensively adulterated.

—Dr. W. T. Belfield has reported some experiment which he has just completed, bearing upon the question of the so-called nucleus of the red blood cor-

puscles. He has repeated Boetscher's experiments, which consist in bleaching the corpuscles with a saturated solution of corrosive sublimate in alcohol, and then staining them. The latter has claimed to find a more highly stained spot in the centre of some of the red corpuscles. Belfield has been unable to find this in human blood. Not questioning Boetscher's results, he has doubted whether they should be taken as proof of a nucleus. The reagents used coagulate albumen and abstract water, and cause a shrinking of the corpuscles, as is shown by the micrometer. Why may not the apparent nucleus be an artificial product of the reagents? To determine this question Belfield conceived the idea of bleaching blood with other reagents, and staining with both carmine and aniline. He has experimented with sulphurous acid, acetic acid, chlorine, and a freezing temperature, — all of which bleach the red corpuscles perfectly, — and with the two staining materials. With none of them has he been able to demonstrate in human blood a more highly stained spot in the centre of a single red corpuscle, although a long series of observations has been made. He has submitted his slides to several other microscopists, but no one has been able to see the appearance Boetscher describes. When by any of these processes turtle's blood (known to be nucleated) was examined, the nucleus appeared distinctly.

A NATIONAL BOARD OF HEALTH.

MR. EDITOR, — A meeting was held last week in Washington which, I think, will have an important influence on the future sanitation of this country, and I have thought you may like to lay the matter before your readers. Unfortunately, I cannot make any statement save from memory. But I shall endeavor to be accurate, and as concise as possible. It was a meeting of two committees appointed at the recent gathering of the Public Health Association at Richmond, to wit, of the executive committee and of an advisory committee of one from each State. A good representation appeared at the National Hotel, where Dr. Cabell, of the University of Virginia, president of the American Public Health Association, had called the meeting. The two committees spent most of Wednesday in informal discussion of two chief topics: First, the proper methods to be urged on Congress as to the further and more exact examination into the essential cause of yellow fever. It was evident that the prevalent opinion of the committee was that we should send a scientific commission to study it at Havana, or in South America. Quarantine of some kind was considered by all speakers as necessary, but to leave the decision of that matter to one man, as proposed in the Lamar Bill, recently offered in the senate, was considered entirely improper. One curious fact was mentioned by a surgeon of the army, namely, that in the epidemic of the fever, in 1863, at Pensacola, a double line of pickets prevented all approach to the cantonments, containing about three thousand troops, and not a single case occurred among them. In this instance, the quarantine was thorough, and *apparently* perfectly effective. The second question, deemed of much importance, was thoroughly discussed. It was: what ought to be the composition of the future national board of health? There were divisions of opinions,

very decided, as to whether the laity should be admitted to it. Some contended that the board should be composed of physicians only, while others were equally earnest that the plan of having a full representation of the laity, especially an engineer and lawyer, was all-important. One gentleman thought that a board consisting only of physicians would make it more certain that really scientific work would be done, and that an engineer, etc., could always be consulted, if one were wanted. To this I answered by the following very significant fact in the experience of our Massachusetts board, upon which we have always had an able civil engineer. After the Brighton Abattoir was built, the board was requested to make its official examination of the arrangements. On arriving at the upper story we found two large iron tanks for holding thousands of gallons of water. Our engineer had noticed the arrangements in the stories underneath, and immediately perceived that the columns would be too weak to support the heavy weight, which would press upon them, when the tanks were filled. On close inspection directly below one of them, we were shocked at finding that, already, the timbers were beginning to be crushed. The imperfections were so slight that it needed the scientific mind and eye of our colleague to recognize them; but, when once pointed out, they were plain to all of us. We of course directed that additional and complete supports should be given immediately, and that no water should be introduced until that was done. I stated that I had no doubt that, if our engineer had not been with us, the imperfection would not have been perceived until too late. Entire destruction of the building would have happened, and perhaps, in consequence of that loss, the great sanitary improvements, since gained in Brighton, would have been indefinitely postponed, owing to the severe loss accruing to the corporation from the mistake. It appeared that the architect had not been asked to provide for these tanks. They were an after-thought of the butchers, who, being ignorant of mechanics, supposed it possible to put any weight they chose into the upper room. Similar arguments might have been used as to the importance of having practical business men and lawyers upon the board.

Again, two if not more plans were brought up by different individuals providing that the board should consist only of persons living in the District of Columbia.

I read the outlines of a plan, similar to that I advocated before the American Medical Association in 1876 at the Chicago meeting. It was as follows: (1) a Secretary of Health, appointed once in seven years by the president, with a salary equal to that of the other secretaries, and having a seat in the cabinet. He would be the presiding and executive officer of (2) a national board of health, to be composed somewhat as follows: the surgeon-general of the army, navy, and marine hospital service; the chief of the engineer corps, of the signal service, of the bureaus of education and of agriculture, etc.; and the attorney-general. These should have the control of sanitary matters, scientific and practical, so far as the United States has constitutional control of such matters, throughout the Union. It might be styled the National Board of Health, and be analogous in its powers and objects to state boards of health. This board would direct the secretary in his work. If, under extraordinary circumstances, he should

feel compelled to take independent action, he was to be directed forthwith to call a meeting of the board and report his action. Such a board should commence quietly and simply as an advisory board, waiting for new duties to be imposed on it by Congress, and more and higher powers to be given to it, as has happened in Massachusetts. The members, being officers of government, would have no extra pay. (3.) A Health Council of the Nation, composed of one delegate from each State, to be chosen by state boards of health, or by the governors of such States as had not established by law any board. This council should meet on the second week of February each year, and continue in session four days, and no longer, unless under call of the president of the United States and under peculiar circumstances, during which the counsel of such a body of sanitarians might be deemed important. Each one of the delegates should be paid — dollars per diem (necessary hotel expenses), and the traveling expenses to and from Washington.

At their meetings, the secretary should preside, and present a report of his action during the year, and ask the council to consider the propositions he would lay before them.

The council would immediately submit all such propositions to several sub-committees, who would be expected to report within twenty-four hours whether any immediate action should be recommended, or a delay for a further examination by means of scientific or other experts, with ample time and means at their disposal, so that thorough work could be done.

The council should originate measures if it chose to do so. But all such should be referred to the board of health above described, which should have the right to carry out in full or in part, or to decline to act, as in its deliberate judgment it might deem best; provided, however, that if any measure or measures, originating with the secretary or with the council, be unanimously adopted by a majority of the whole council, actually present and voting, then the national board should be compelled to carry out such recommendations.

These various plans were discussed by the two bodies acting in concert, and the meeting was adjourned.

I learn that at the executive committee meeting, held immediately afterward, the last plan was approved. But it was thought best, and it was voted not to urge any definite plan upon Congress at the present time, but to propose the appointment of a "preliminary sanitary commission," to be composed of the best men who can be found for the purpose, to be selected by the National Academy of Sciences, and their names to be sent to the president of the United States, as men most fitted for the important trust. Said commission would have two objects in view, namely: first, the thorough study of yellow fever, not only in this country, but in foreign countries, where it is indigenous, and for this our government should seek for international commissions in order more thoroughly to carry out the work. This was to be done by means of experts, and for the purposes an adequate sum would have to be appropriated by Congress. Second, it should submit a report to Congress of some plan for a national organization in reference to health.

In accordance with these views, a paper was drawn up, which is to be signed by the two committees, and to be sent to both houses of Congress.

It seems to me that an important step forward has thus been taken towards a national organization. I appeal earnestly to every member of the Massachusetts Medical Society, and others interested in sanitary matters, to sustain the committees by appeals, either personally or by letters, to the members of the house of representatives and of the senate, urging them to support the proposition for the establishment of the preliminary commission, and for an adequate appropriation. Yours respectfully, HENRY I. BOWDITCH.

SHORT COMMUNICATIONS.

MEMORIAL OF THE AMERICAN PUBLIC HEALTH ASSOCIATION ON CONGRESSIONAL LEGISLATION AFFECTING THE PUBLIC HEALTH.

WHEREAS the American Public Health Association, at its late meeting at Richmond, Va., provided for the appointment of a committee to advise with the executive committee with regard to matters of legislation coming before Congress, during the present session, which relate to the subject of public health; and whereas the association instructed the executive committee to exert its influence to secure such legislation as will best protect the public health of the whole country;

And whereas the executive committee, in conjunction with the advisory committee, have duly considered the various resolutions presented to the association, and the present condition of propositions for national sanitary legislation;

Now therefore we, the undersigned, officers and members of the executive committee and of the advisory committee on legislation of the American Public Health Association, do hereby declare our opinion to be as follows:—

I. That while, under ordinary circumstances, the association as a scientific body should hesitate to take the initiative in urging any specific legislation, yet at the present time it is expedient to state as precisely and definitely as possible our views as to what action should and should not be taken by the present Congress with regard to the public health, seeing that we believe there is great danger of hasty and unsatisfactory action on this subject.

II. That in view of the great diversity of opinion among those best qualified to judge as to methods of quarantine, and especially as to the relations which should exist between national and local systems of quarantine; of the fact that we have not as yet sufficient information to enable us to formulate any system of national quarantine which might not do more harm than good; and of our belief that there are grave reasons for apprehending recurrence of yellow fever in the United States during the coming summer, from causes which are already in the country, and which, therefore, cannot be prevented by any system of quarantine,—we believe that any legislation by the present Congress with regard to a national quarantine, either to provide a new law or to amend or enforce the present one, will be inexpedient and unwise.

We wish, however, that it shall be distinctly understood that we are not opposed to a national quarantine system, if carefully elaborated and placed in proper connection with state and municipal sanitary organizations, but we are well satisfied that it is impossible to organize such a system at the present time.

III. That it is highly desirable that Congress shall, during the present session, provide for the proper organization of a provisional national health commission.

IV. That the objects and duties of this commission should be as follows: (A.) To report to Congress at its next session a plan for a permanent national public health organization, said plan to be prepared after consultation with state boards of health, and with all those who possess special knowledge or experience bearing on this subject. This plan should include one for a national system of quarantine. (B.) That it should take charge of any investigations into the causes and means of prevention of yellow fever or other epidemic diseases which may be referred to it by Congress, selecting experts for that purpose so far as may be necessary.

One of these investigations, at all events, should be made at some point where yellow fever is endemic, and by experimental methods, as suggested in the report of the committee on the general report of the yellow fever commission, presented at the last meeting of the association.

We do not think that this commission should be burdened with any administrative duties which are not connected with the investigations just referred to, and it should in no manner be dependent upon, or be connected with, any existing bureau or department of the government.

V. That it is of the greatest importance that this commission should be composed of men well known for their scientific attainments and knowledge of public hygiene. They should be persons with whom all scientific and professional men of the country will be glad to coöperate and advise; to whom no suspicion can attach that they might consult personal interests or ambitions rather than the public good, and whose opinions when presented after due deliberation will command the respect, if not the assent, of all well-educated men. Such persons are not common, yet we are well satisfied that they exist, and that their services can be procured for this very important work.

VI. That the proper selection of these men is a matter of difficulty, and one which will require the greatest care. They can only be selected by some man or body of men competent to judge of their merits. Political or local considerations should have no weight in this matter, nor, unless there are grave legal or constitutional objections, should any officer of the government be burdened with, or allowed to assume the responsibility of, selecting them. After careful consideration of various plans proposed to secure this end, which is felt by all to be vitally necessary to success, we are of opinion that the simplest and surest method, and the one which will command the most general approval among the scientific and professional men of the country, is that Congress should request the National Academy of Sciences to designate the members of the commission.

VII. That the number of persons in the commission should not be less than seven nor more than nine; that they shall elect their own officers; and that their compensation should not be less than ten dollars per day for each and every day that they are engaged in the work of the commission, besides their traveling expenses. That the commission shall be authorized to employ such clerical force as may be necessary to carry out its work, and that the commission shall fix the rates of pay of its employees and of the experts which it may select and employ.

VIII. That a liberal appropriation should be made to meet the expenses of the commission and of the investigations which may be placed under its direction.

IX. That upon the request of the commission, the secretaries of war, of the navy, and of the treasury, and the attorney-general, shall be authorized to detail officers from their several departments to aid in the investigations undertaken, the number so detailed not to exceed three from any one department at the same time.

X. That it is highly desirable that there should be added to the standing committees of the senate and house of representatives a committee on public health.

XI. We are entirely convinced that the future of public hygiene in this country depends mainly upon the proper organization of state and local boards of health, and upon such recognition of their importance and utility by the people and their legislators that the necessary means and powers shall be granted to them, which will enable them properly to perform their duties. We believe that the general government can do much to stimulate and encourage the formation of such boards, and that an important part of the duty of the provisional national health commission which we have recommended will be to point out what can best be done to forward this object.

Such boards can do good work not only for their own locality, but for the nation, and if the nation will pay for this work it will be most cheerfully done, especially if a proper central health organization be arrived at, with which they can coöperate, as we hope and believe will be the case if the plan which we have suggested be carried out.

XII. In conclusion we would state that in our opinion the true interests of public health and of sanitary science in the United States are in grave danger at the present time, and that it is the duty of all professional and scientific men, both as individuals and as members of learned societies, to endeavor to prevent premature legislation, which is now threatened, but

which we believe the great majority of our national legislators will oppose if properly informed upon the subject.

(Signed :) James L. Cabell, M. D., Professor University of Virginia, President Am. Pub. Health Ass.; John S. Billings, M. D., Surg. U. S. Army, First Vice-Pres't Am. Pub. Health Ass.; Edward H. Janes, M. D., Ass. San. Sup't Health Dep. City of New York, Secretary Am. Pub. Health Ass.; C. B. White, M. D., New Orleans, La; T. J. Turner, M. D., Medical Inspector U. S. Navy; E. M. Hunt, M. D., Secretary State Board of Health, New Jersey; C. F. Folsom, M. D., Secretary State Board of Health, Mass.; H. I. Bowditch, M. D., President State Board of Health, Mass.; James E. Reeves, M. D., Wheeling, W. Va.; J. M. Tower, M. D., Washington, D. C.; Thomas F. Wood, M. D., Secretary State Board of Health, N. C.; Henry D. Holton, M. D., Brattleboro, Vermont; B. F. Gibbs, M. D., Medical Inspector U. S. Navy; John Eaton, United States Commissioner of Education.

THE METRIC SYSTEM IN MEDICINE.

OLD STYLE.

mi. or gr. i. equals		
f <i>3</i> i. or <i>3</i> i. equals	4	06
f <i>3</i> i. or <i>3</i> i. equals	32	

The decimal line instead of *points* makes errors impossible.

As .06 (Drug) is less than a grain, while 4. and 32. (Vehicle) are more than the drachm and ounce, there is no danger of giving too large doses of strong drugs.

C. C. used for Gms. causes an error of 5 per cent. [excess].

A teaspoon is 5 Gms.; a tablespoon, 20 Gms.

REPORTED MORTALITY FOR THE WEEK ENDING JANUARY 4, 1879.

Cities.	Population. ¹	Deaths in each.	Death-Rate.	Percentage of total Deaths from					
				The Principal Zymotic Diseases.	Acute Lung Diseases.	Diphtheria and Croup.	Scarlet Fever.	Diarrhoeal Diseases.	
Brooklyn	564,500	224	20.12	20.54	17.41	12.05	3.57		1.79
Baltimore	365,000	137	19.57	11.68	15.47	8.77	1.46		
Boston	365,500	178	26.04	19.10	10.11	8.99	5.62		
District of Columbia	160,000	71	23.14	19.72	9.86	8.45	9.86		
Pittsburgh	145,000	49	17.62	20.41	8.16	16.33			
Milwaukee	122,000	44	18.57	31.82		27.27			
Providence	100,000	47	24.51	23.40	12.77	10.64	8.51		
Lowell	53,300								
Worcester	52,500	19	18.87	15.79	5.26	15.79			
Cambridge	51,400								
Fall River	48,500	20	21.60	15.00	15.00	10.00	5.00		
Lawrence	38,200								
Lynn	34,000	16	24.54	12.50	6.25		6.25		
Springfield	31,500	9	14.90						
Salem	26,400	14	27.65		23.57				
Somerville	23,350	7	15.63	28.57		28.57			
Chelsea	20,800	6	15.04		16.66				
Taunton	20,200	6	15.49	50.00		16.66			

¹ Estimated for July, 1879.

Diphtheria is very prevalent and fatal in Cleveland, prevalent in Richmond, and decreasing in Providence; scarlet fever is prevalent and fatal in Richmond. No deaths from yellow fever were reported to Supervising Surgeon-General Woodworth for the week. In fifteen cities of Massachusetts the mortality from acute lung diseases was about the same as for the previous week; from pulmonary consumption and scarlet fever somewhat increased; from the other zymotic diseases less; and no deaths were reported from small-pox.

Our last foreign returns (December 23d) show that in one hundred and forty-nine German

cities and towns, with a population of 7,419,033 inhabitants, scarlet and enteric fevers have diminished; measles, and especially diphtheria, considerably increased; whooping-cough and inflammatory diseases of the lungs and air-passages were more fatal; pulmonary consumption less so. Small-pox has slightly increased in London, and diminished in Vienna, Buda-Pest, Paris, Warschau, Barcelona, and St. Petersburg; very few cases were reported in Prague and Trieste. The scarlet fever epidemic has spread more widely in London and is less extensive in Birmingham.

The meteorological observations for the week ending January 4th were reported by Sergeant Parker, in Boston, as follows:—

Date.	Barom-eter.	Thermom-eter.			Relative Humidity.			Direction of Wind.			Velocity of Wind.			State of Weather.			Rainfall. (Melted Snow.)
	Daily Mean.	Daily Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Amount in Inches.
Dec. 29, 1878.	30.21	21	27	13	73	85	72	60	N. W.	W.	6	8	2	C.	F.	F.	.12
" 30, 1878.	30.07	23	32	17	71	63	72	68	S. W.	N. W.	6	8	8	L. S.	F.	C.	
" 31, 1878.	30.23	23	33	17	76	43	54	57	W.	W.	5	10	6	C.	F.	C.	
Jan. 1, 1879.	30.05	26	33	15	67	40	61	56	W.	S. E.	7	4	2	F.	Cd.	Cd.	
" 2, 1879.	29.38	21	34	10	75	95	65	78	N.	S.	5	9	25	L. S.	L. S.	Cd.	.46
" 3, 1879.	29.13	12	15	2	52	53	56	53	W.	N. W.	34	29	32	C.	F.	Cd.	
" 4, 1879.	29.34	22	26	19	48	42	56	48	N. W.	W.	24	22	12	Cd.	F.	F.	

Weekly Summary.	Barometer.	Thermometer.	Humidity.	Wind.
	Mean 29.778	Mean 29.5	Mean 59.2	Total miles traveled, 1968
	Max. 30.292	Max. 34	Max. 100	Prevailing direction, W.
	Min. 29.044	Min. 2	Min. 35	
	Range 1.248	Range 32	Range 65	

Barometer corrected for temperature, elevation, and instrumental error.

Explanation of weather symbols: Cd., cloudy; C., clear; F., fair; Fg., fog; R., rain; S., snow; L. S., light snow; T., threatening.

Station: Latitude 42° 21'; longitude 71° 4'; height of instrument above the sea, 77.5.

MEDICAL LIBRARY.—In response to earnest requests Dr. Edward Reynolds will give more reminiscences of the older physicians Saturday evening next, at eight o'clock. Members of the profession invited. Ladies are not expected.

ERRATA.—Owing to an unfortunate delay in the mails, the corrections for Dr. Billings's article, *The Medical Journals of the United States*, published January 2, 1879, had not reached us at the hour of going to press. A number of errors thus escaped correction, the more important of which are here noted:—

Under *Arkansas*: for J. I. Hall read Hale. *Georgia*, 18th line: for *Semi-Monthly Medical and Surgical Journal* read *Reptory*. *Illinois*, last two lines: for Nos. 1-3 read 1-6; for *September* read *December*. *Indiana*, 5th line: for T. W. Stevens read T. M. Stevens. *Kentucky*, 16th line: for L. J. Frazer read L. J. Frazee. *Massachusetts*, last line: for *five* read *seven* volumes. *Michigan*, 13th line: for *Western Medical Advocate*, etc., read *Advantage*. *Missouri*, 9th line: for O. B. Knobe read O. B. Knode; for *Pallen E. F. Smith* read *M. E. Pallen, E. F. Smith*. *New York*, 7th line from foot of page 7: for D. L. M. Pierotto read *Peizotto*; 1st line on page 8: for W. Turner read U. Turner; 18th line on page 9: for *Allan McLane* read *Allan McLane Hamilton*. *Ohio*, 8th line from foot of page, after the word "forming" it should read, "Western Journal of Medicine and Surgery. The Western Medical Gazette. Semi-Monthly and Monthly." *Oregon*, 3d line: for *Marion Company* read *County*.